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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,406	03/04/2002	Basil Naji	BALDS2.029AUS	4838

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EXAMINER

STEIN, STEPHEN J

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 09/24/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/090,406

Applicant(s)

NAJI ET AL.

Examiner

Stephen J Stein

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 22-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 12-20, 23-27 and 29-32 is/are rejected.
- 7) ☒ Claim(s) 9-11, 22 and 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Terminal Disclaimer

3. The terminal disclaimer filed on August 29, 2003 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of a patent granted from application 10/090,375 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Objections

4. Claim 1 is objected to because of the following informalities: In line 3, the term --and a-- should be inserted between the words "binder" and "dewatering agent". Appropriate correction is required.

Claim Rejections - 35 USC § 103

1. Claims 1-8, 12-20, 23-27 and 29-32 are rejected under 35 U.S.C. 103(a) as obvious over US 4,818,595 (Ellis) in view of US 4,981,740 (Larsen).

Ellis discloses a fire barrier laminate comprising a plywood substrate, a coating comprising calcium aluminate cement (hydraulic binder) and a filler of alumina trihydrate or silica flour (also particulate dewatering agent) (col. 72, lines 34-68). The reference still further teaches that the coating is applied to an asbestos cement board (asbestos fiber reinforced

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cementitious substrate) or gypsum wall board (gypsum building board) (col. 26, lines 34-46).

Ellis still further teaches that the calcium aluminate cement is white due to the high percentage of Al_2O_3 in the cement (col. 20, lines 10-19). Ellis still further teaches that the coating composition includes a gauging component of MgCl_2 or MgSO_4 (functional additive) (col. 72, lines 41-46).

The reference further discloses in examples that the coating may applied to either one side of the substrate, both sides of the substrate, or between two pieces of laminated plywood (See for instance, Examples C, N and P) and that the thickness of the coating can be varied from a few mils (~ 0.1 mm) to $1/16$ inches (15mm) thick (col. 61, lines 13-15). Ellis still further teaches that the coating may used in conjunction with reinforcing geotextiles (reinforcing layer) such as woven or non-woven fiberglass of other natural or synthetic fabrics (abstract). The reference finally teaches that the binder components as defined by applicants' specification (high alumina calcium aluminate cement and TiO_2 pigment) are 18.7 wt% based on the total weight of dry ingredients (See Table 1, Example 1). Elli does not specifically teach the incorporation of fly ash into the coating composition or the incorporation of a course fraction of a course fraction of fly ash having a particle size greater than about 100 microns into the coating composition.

Larsen teaches a method of making concrete articles using a hydraulic cement and further teaches that fly ash with a particle size of 0.25mm (160 μ) is a suitable substitute filler for silica flour (col. 6, lines 50-52 and lines 30-31).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to substitute fly ash with a particle size of greater than 100 μ as taught by Larsen for the filler disclosed in the coating composition of Ellis, because it is disclosed that fly ash is a suitable filler substitute for silica flour in a similar composition (e.g. water settable material).

With regard to the claimed quantity of dewatering agent, water to solids ratio, and drainage time values (all result effective variables) recited in claims 26, 29 and 31, absent a showing of criticality, it would have been obvious to a person of ordinary skill in the art at the time of the invention to optimize these values through routine experimentation. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Allowable Subject Matter

2. Claims 9-11, 22 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

While the prior art suggests a fire barrier laminate comprising a substrate with a coating comprising calcium aluminate cement (hydraulic binder) and fly ash (Ellis in view of Larsen), the prior art taken as whole, fails to teach or suggest a reinforcing layer of fiber reinforced cement on the functional layer. Further, the prior art fails to teach or suggest the claimed breakdown of particle size of the fly ash component recited in claims 22 and 28.

Response to Arguments

3. With regard to the obvious type double patenting rejections, the rejections have been withdrawn in view of applicants filing of a terminal disclaimer.

With regard to the 35 USC 112 2nd paragraph rejections to claims 2 and 13, the rejections have been withdrawn in view of applicants amendment to the claim 2 and in view of arguments regarding claim 13.

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With regard to the 35 USC 102(b) rejections to claims 1, 2, 4-8, 12-20 and 24 applicants' arguments in view of their amendment have been deemed persuasive and the rejections have been withdrawn. New rejections under 35 USC 103(a) have been made.

With regard to the rejections under 35 USC 103(a) over Ellis in view of Larsen, applicants argue that while Larsen discloses using fly ash in the cement mixture, the cement mixture in Larsen is used as a filler for casting concrete pipes, and that a pipe casting process does not require the slurry to dewater quickly, and as such there would be no teaching or suggestion of using fly ash as a dewatering agent since dewatering is not a concern. Applicants further argue that there is no motivation to substitute fly ash as taught by Larsen for the filler disclosed in the coating composition in Ellis to improve the dewatering of the slurry, because the products and processes are unrelated. This argument has been considered, but is not deemed persuasive. First, both references relate to water settable cement compositions and are therefore analogous art. Second, there is an express teaching in the Larsen reference for substituting fly ash for the silica flour (see col. 6, lines 49-53) in the cement composition. The fact that in both references the material is used as a filler and not specifically as a dewatering agent is not relevant. There is an express motivation for combining the teachings of the references and combination of these references discloses applicants claimed invention. The rejections are proper.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Stein whose telephone number is (703) 305-0583. The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:00 p.m. If the attempts to reach the examiner are unsuccessful, the examiner's supervisor, Deborah Jones can be reached by dialing (703) 308-3822. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose phone number is (703) 308-0661. The fax phone number for this group is (703) 872-9310 for non-final responses and (703) 872-9311 for after final responses.

September 20, 2003



Stephen J. Stein
Primary Examiner
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